



Company Overview

FEBRUARY 2025

Nasdaq: BNRG



Disclaimer

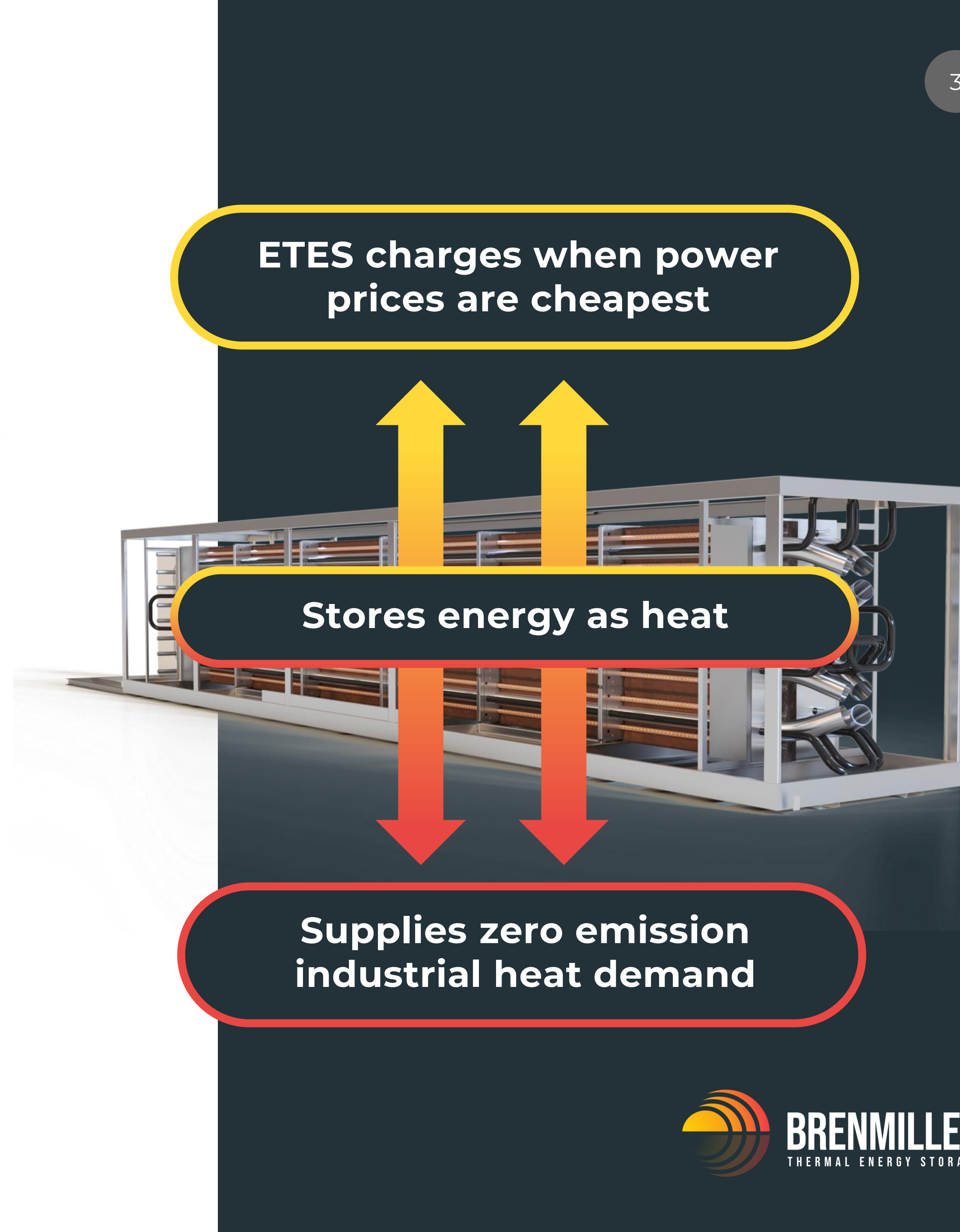
This presentation of Brenmiller Energy Ltd. (the “Company”, “Brenmiller” or “Brenmiller Energy”), any oral presentation of the information contained in this presentation and any question-and-answer session that may follow contain “forward-looking statements” within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Statements that are not statements of historical fact may be deemed to be forward-looking statements. For example, the Company is using forward-looking statements in this presentation when it discusses: that the Company's serviceable available market potential exceeds 3,000 TWh (\$155B), that the company will play a leading role in the Electrothermal Energy Storage market with over 100 MWh of capacity built or in progress, 4 GWh manufacturing capacity; benefits of the Company's technology to current and future customers, future revenues from the Company's ongoing projects, 2025 growth projections which are based on \$10M pipeline; above \$200M Europe commercial opportunities, Brenmiller Energy U.S. future pipeline growth, future grant opportunities, the Company's \$200M in potential production capacity annually. Without limiting the generality of the foregoing, words such as “plan,” “project,” “potential,” “seek,” “target,” “may,” “will,” “expect,” “believe,” “anticipate,” “intend,” “could,” “estimate” or “continue” are intended to identify forward-looking statements. Readers are cautioned that certain important factors may affect the Company's actual results and could cause such results to differ materially from any forward-looking statements that may be made in this presentation. Factors that may affect the Company's results include, but are not limited to, the Company's planned level of revenues, capital expenditures and research, development and engineering expenses, the demand for and market acceptance of its products, impact of competitive products and prices, product development, commercialization or technological difficulties, the success or failure of negotiations and trade, legal, social and economic risks, the risks associated with the adequacy of existing cash resources, and political, economic and military instability in the Middle East, specifically in Israel. The forward-looking statements contained or implied in this presentation are subject to other risks and uncertainties, many of which are beyond the control of the Company, including those set forth in the Risk Factors section of the Company's Annual Report on Form 20-F for the year ended December 31, 2023 filed with the Securities and Exchange Commission's on March 18, 2024, which is available on the SEC's website, www.sec.gov. The information in this presentation, any oral presentation of it and any question-and-answer session that may follow does not constitute or form part of and should not be construed as an offer or the solicitation of an offer to subscribe for or purchase securities of the Company, and nothing contained herein or therein shall form the basis of or be relied on in connection with any contract or commitment whatsoever.

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Key Company Highlights

- **\$155B market opportunity** - 25% of global energy demand accounts for industrial heat. for the Electrothermal Energy Storage (ETES) market in Europe and the U.S. equivalent to 3,100 TWh;*
- **ETES (Heat Batteries) fill the gap** – They solve the variability between renewable energy supply and industrial heat demand;
- **250%+ difference between average and off-peak electricity costs** – Driven by renewable energy adoption;
- **Brenmiller is already generating revenue** – well-positioned to play a leading role in the ETES market with over 100 MWh of capacity built or in progress.

*Source: System IQ, Catalysing the Global ETES Opportunity Feb 2024





Net-Zero within Reach

Industrial heat accounts for
25% of global emissions*



*International Energy Agency, Renewable energy for industry, 2017.



PILOTS:



COMMERCIAL PROJECTS:



| Hungarian pet food manufacturer



| Tempo Israeli beverage manufacturer



| Israeli Medical Center

CUMULATIVE PROJECTS TO DATE:

103 MWh

MANUFACTURING CAPACITY (AT FULL SCALE):

4 GWh

EMPLOYEES:

55

(As of February 2025)

AWARDS AND RECOGNITION:

- **European Commission** – Seal of Excellence for Horizon 2020 Project
- **BIRD Energy** – Approval for U.S.-Israel Clean Energy Project
- **TIME Magazine** – Best Inventions of 2023
- **BloombergNEF** – BNEF Pioneers 2024 Finalist
- **European Investment Bank** – Innovation Champion
- **Edison Awards 2025** – Finalist



LEADERSHIP

Management Team



**AVI
BRENMILLER**

Chairman & CEO



**DORON
BRENMILLER**

Director & CBO



**NIR
BRENMILLER**

Director & COO



**OFIR
ZIMMERMAN**

CFO



**GILAD
WALKER**

Chief Growth
Officer

Partners



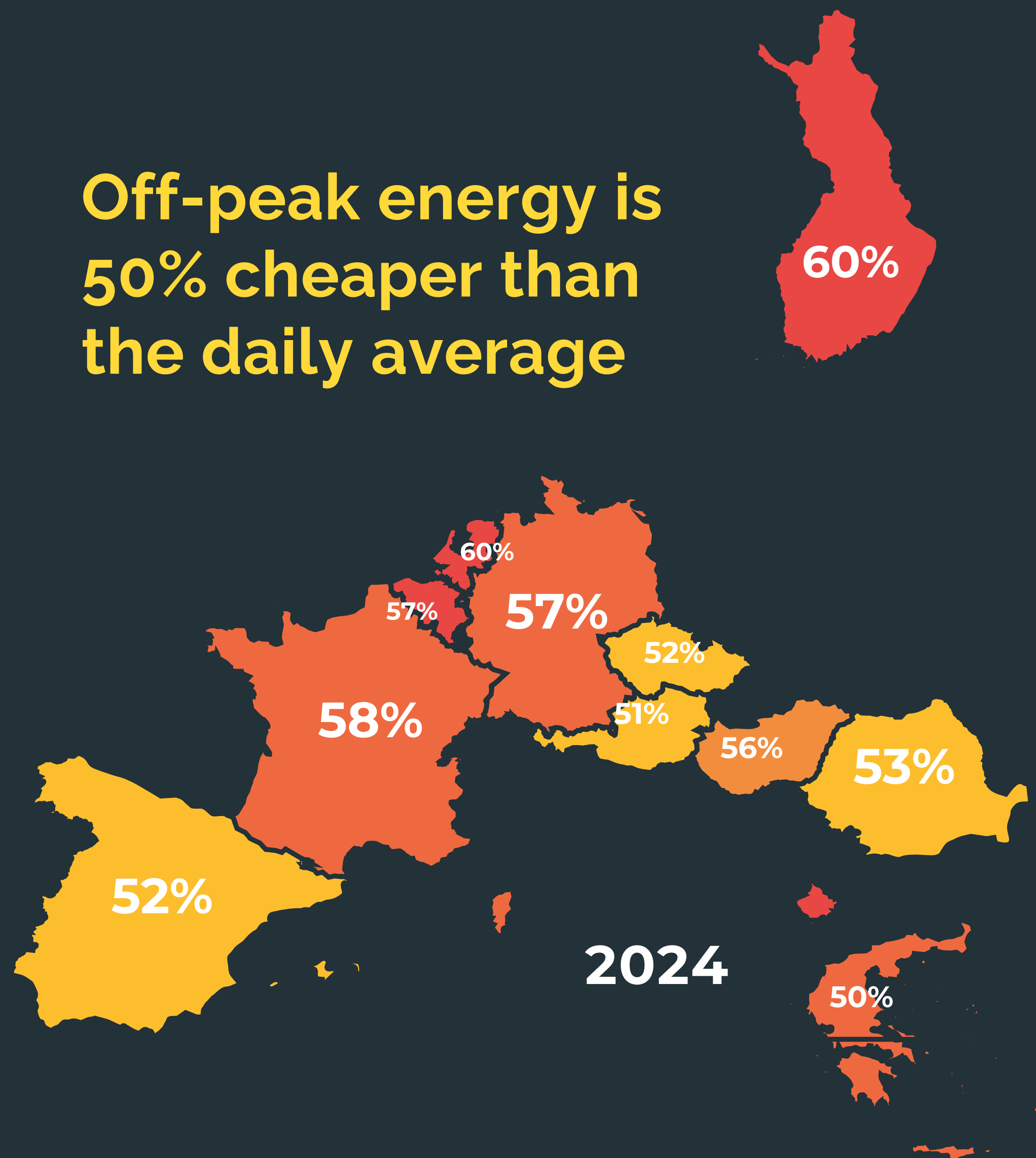
Distributor in the
Northeast U.S.



International developers of
renewable energy projects



Off-peak energy is
50% cheaper than
the daily average



→ **50%+**
**Saving with
stored off-peak
energy**

- ✓ REDUCES ENERGY COST VOLATILITY
- ✓ INCREASE IN RENEWABLE ENERGY INTEGRATION
- ✓ NEGATIVE PRICES OF ELECTRICITY IS INCREASING EVERY YEAR

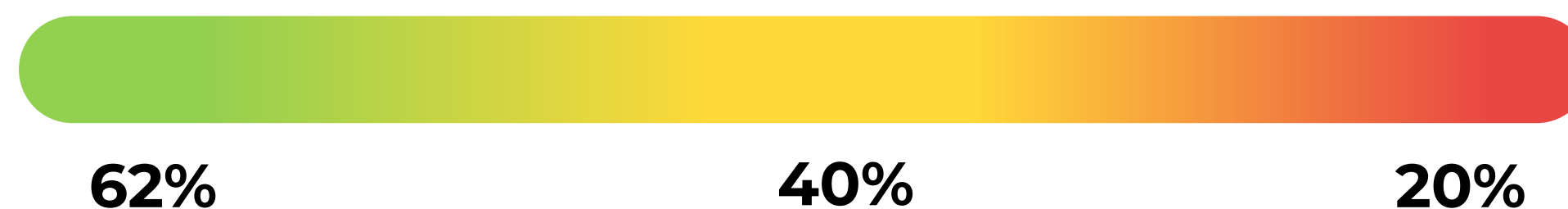
Renewable Energy Penetration Drives Off-Peak Electricity **Significantly Lower** in Most European Countries

	AUST	BELG	CZEC	DEN	FIN	FRAN	GER	GRC	HUNG	ITLY	NETH	NORW	POL	ROM	SPN	SWDN	SWTZ
2020	35%	39%	36%	48%	60%	35%	44%	31%	36%	28%	37%	16%	22%	37%	22%	49%	28%
2021	30%	33%	33%	36%	48%	30%	36%	28%	33%	20%	33%	18%	24%	38%	20%	42%	23%
2022	32%	33%	30%	35%	61%	25%	37%	29%	30%	21%	35%	21%	30%	35%	22%	60%	20%
2023	36%	38%	36%	43%	54%	35%	45%	37%	38%	23%	46%	25%	26%	45%	34%	47%	25%
2024	51%	58%	52%	54%	60%	58%	57%	50%	56%	24%	62%	29%	43%	53%	52%	48%	42%

KEY INSIGHTS

- ✓ Renewable adoption drives greater peak-to-off-peak price gaps.
- ✓ Peak-to-off-peak variability is a sustained trend.
- ✓ Green marks the largest price gaps and most attractive markets.

Heat map of yearly gaps between lowest 4-hour prices and 24-hour average prices by country.



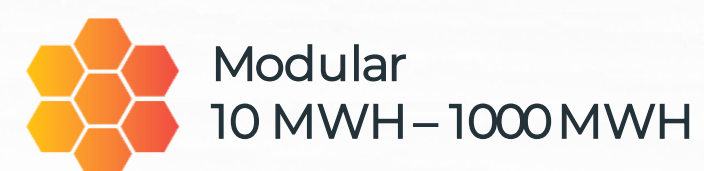
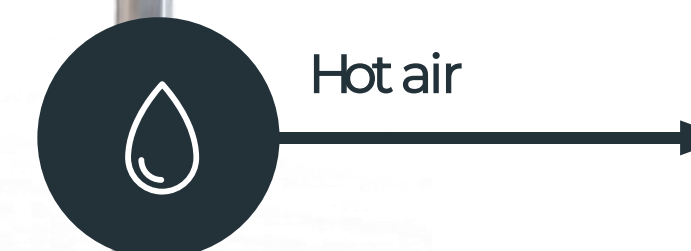
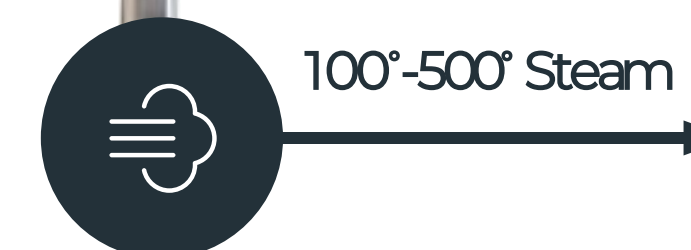
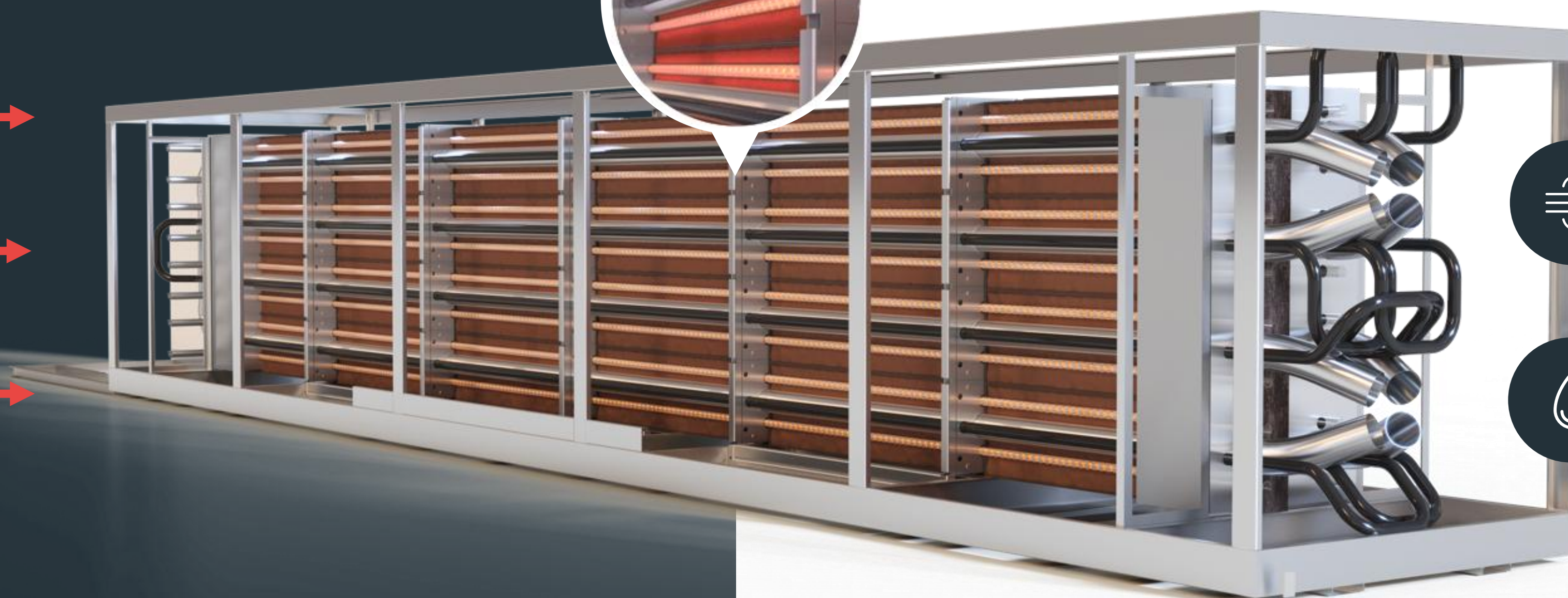
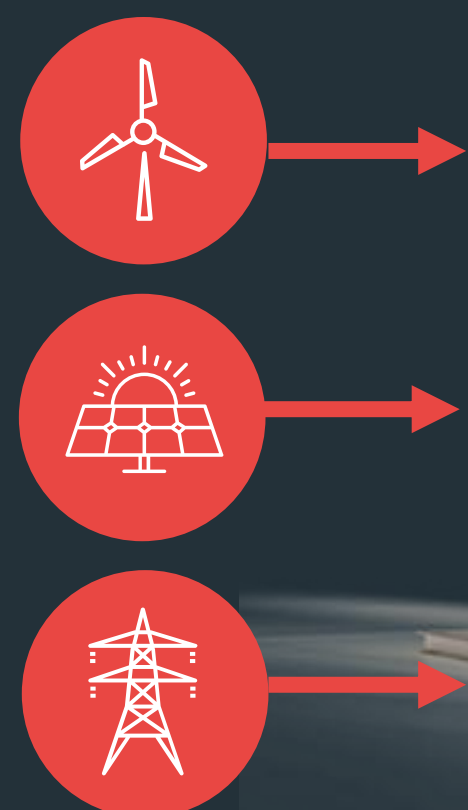
PRODUCT

bGen™ Zero Heat Battery

- **Delivers energy as heat**, tailored for industrial applications.
- **Stores excess energy** during off-peak hours and supplies it during peak demand at a fraction of the cost.
- **Power to Heat:** Electrification of heat for zero-carbon steam.



Embedded electrical heaters





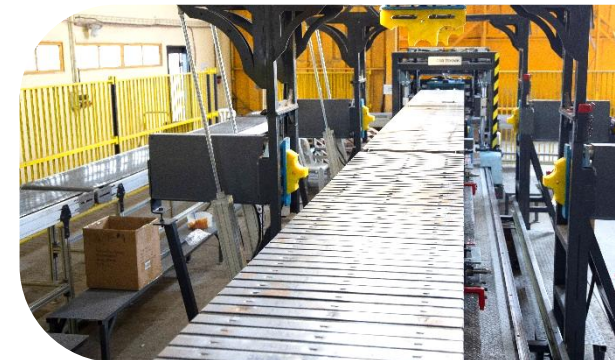
Technology: Turning Rocks Into Heat Batteries



**ZERO
EMISSIONS**



Rocks are crushed
to small bits



Thin metal cells ("bCells") are
filled with the crushed rocks



bCells are stacked into
12 meter modules



Modules are assembled
on-site to a structure



Electrical heaters
are embedded



Structure is insulated
and connected to plant



Case Study:



CUSTOMER PROFILE

- European private-label pet food producer supplying 35+ countries.
- 12 production facilities producing 700,000+ tons of pet food annually.
- Operations in Hungary, Netherlands, Slovakia, Czech Republic, and Poland.

DRIVERS

- 42% emissions reduction target by 2030.
- High energy costs and reliance on fossil fuel boilers.
- Need for sustainable energy and grid stability.

PROJECT DETAILS

- Location: Dombóvár, Hungary.
- Duration: 12 years.
- Cost: ~\$5 million.

BRENMILLER SOLUTION

- Replaces fossil fuel boilers to cut costs and emissions.
- 12-year Heat as a Service (HaaS) agreement.
- Electricity charging at wholesale prices, combined with payments from grid operators for grid balancing.
- 30 MWh bGen ZERO system at PPF's Hungary plant.
- Low-cost, low-carbon steam at a fixed rate.

SAVING ESTIMATES

- Annual Energy Cost Savings: \$1.9M
- Annual CO2 Abatement: 1,400 Metric Tons

COMMERCIAL TERMS

- Annual Project Cash Flow: \$0.7M
- Project IRR*: 10%+
- Investment Cost: \$4.6M
- Expansion Potential: 11 factories (up to 1.2 GWh)



Serviceable Available Market Potential Exceeds 3,000 TWh (\$155B)

1

ETES charges
when power
prices are
cheapest

2

ETES stores the
energy as heat

3

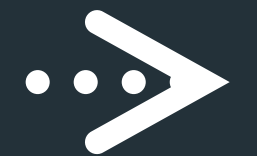
ETES can
output heat
or power



Power



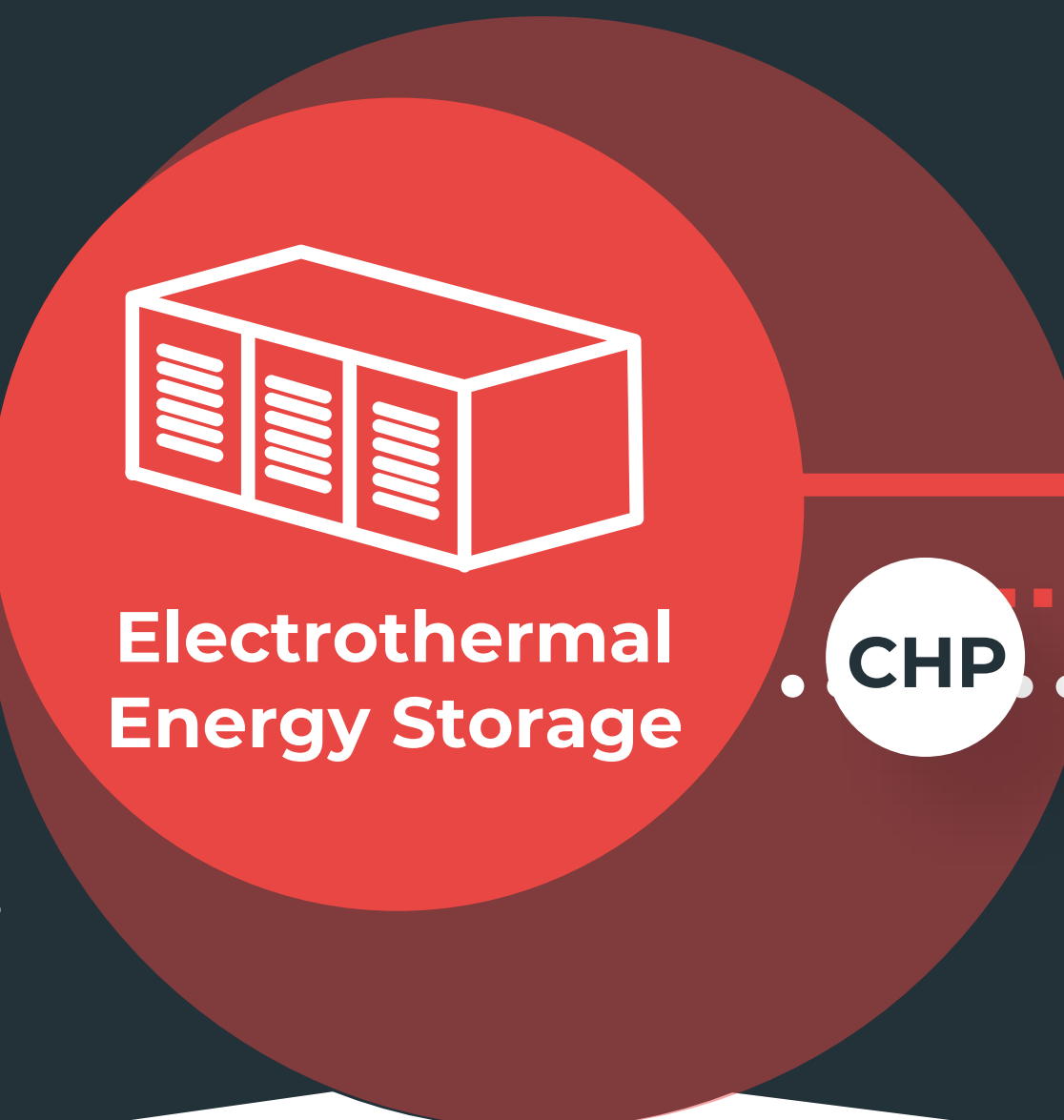
Heat



Alternative
configuration
for combined
heat and power
(CHP)

Electricity
Grid

Standalone renewable
generation project or power or
purchase agreements



**Electrothermal
Energy Storage**

CHP



Heat
delivery
(hot water,
steam or air)



Option to output as
power for onsite usage
or back to grid

Monetization



H1 2025: Sign financing agreement for Wolfson and Tempo, financial lease with strategic partner, approximately (80% of future income): ~\$2.5M



H1 2025: Reach Tempo 2nd payment milestone (~\$0.6M)



H1 2025: Recognize revenue from Enel project

2025 **Expected** Growth - \$10M+

based on **current** pipeline



H1 2025: Sign additional agreement through Brenmiller EU



Q3 2025: Sign a multi-million dollar agreement with industrial client in Eastern Europe



Q4 2025: Sign a multi-million dollar agreement with an industrial company in Europe



Q4 2025: Sign term sheet for first U.S. commercial project



Q4 2025: Achieve commercial close for the Hungarian project

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CONFIDENTIAL

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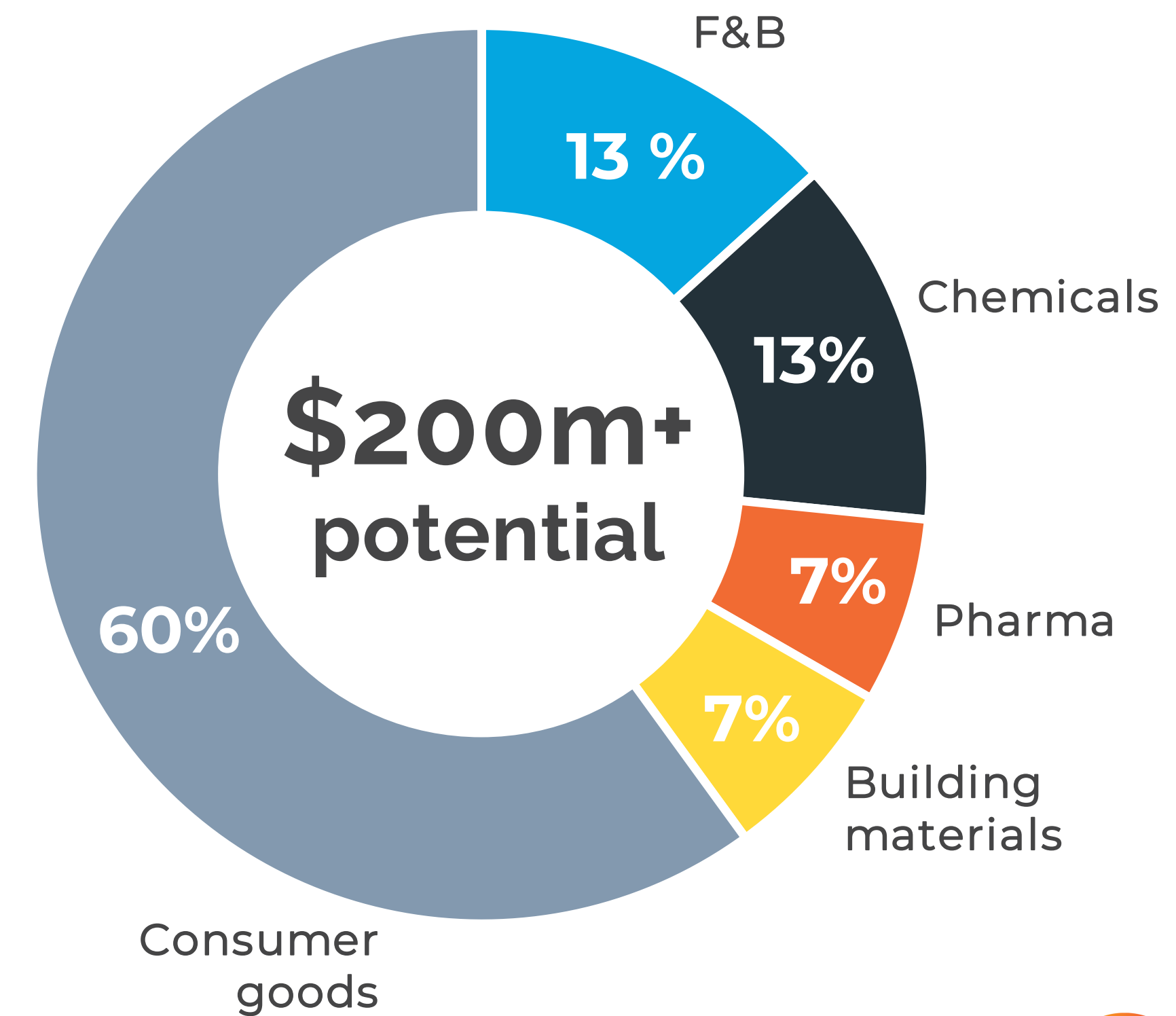
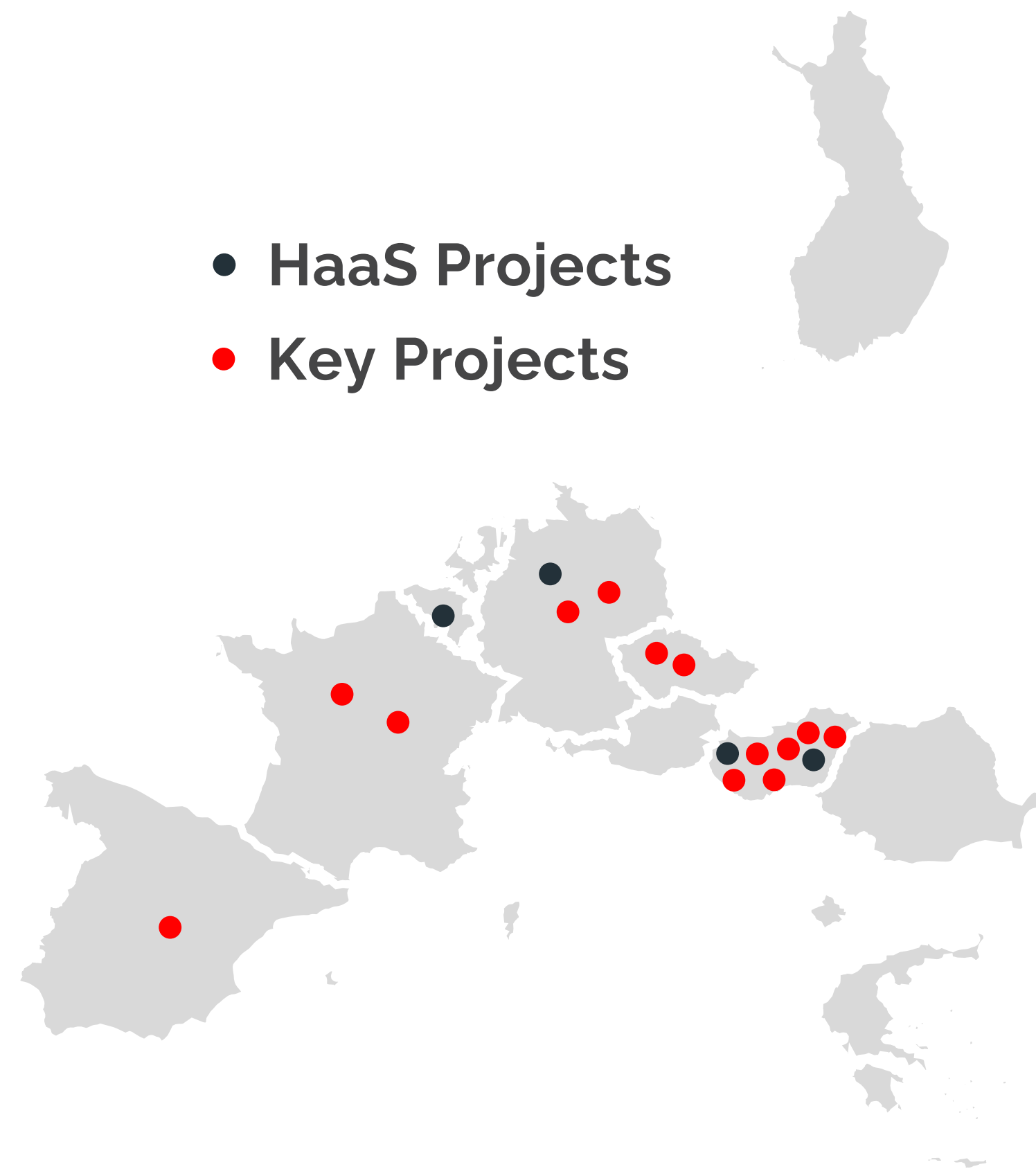


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\$200m+ Europe commercial opportunities – HaaS only





Brenmiller Energy U.S. Pipeline Growth



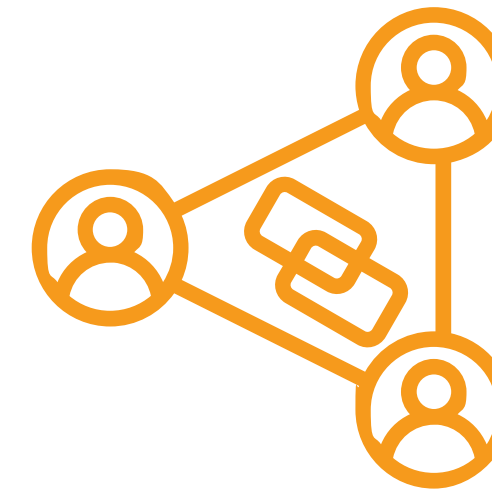
PIPELINE VALUE

Brenmiller Energy's commercial pipeline in the U.S. has grown to over \$210 million in collaboration with its exclusive distribution partner, Rock Energy Storage.



GRANT OPPORTUNITIES

State and federal grants identified for bGen™ ZERO TES systems, enabling potential project financing in 2025.



STRATEGIC PARTNERSHIPS

Since the June 2024 exclusive agreement with Rock Energy Storage, dozens of opportunities are under development, focusing on favorable economics and high U.S. market interest.



MARKET GROWTH

Energy storage deployments in the U.S. grew by 80% (Q3 2023–Q3 2024), driven by increasing demand for TES solutions.

(Source: U.S. Energy Storage Monitor, Wood Mackenzie Power & Renewables and the American Clean Power Association.),

Aiming to Lead the Industry

103MWh in operation and construction; proven tech

COMMERCIAL PROJECTS – UNDER DEVELOPMENT

Capacity	Business Model	Description	Location	Annual CO ₂ Abatement	Energy Cost savings
30 MWh	HaaS	ppf – large pet food manufacturer	Hungary	1.4MT	\$1.9M
32MWh	HaaS (50%/50)	Tempo – Beverage manufacturer	Israel	6.2MT	\$7.5M
12MWh	Haas	Wolfson Medical Center	Israel	3.9MT	\$6.5M

COMMERCIAL PILOTS

Capacity	Description	Location
24 MWh	Enel – Flexible operation of thermal power plant, shifting excess energy to peak hours	Italy
1 MWh	NY Power Authority	New York, USA

World's First Heat Battery Gigafactory

- Market leader in live production capacity, giving Brenmiller an operational capability edge.
- 4 GWh manufacturing capacity at full scale, supported by European Investment Bank funding.
- Tested approach creating a template to launch localized manufacturing in key geographies.
- \$200m in potential production capacity annually.



bGen™ – Competitive Edge in Thermal Energy Storage



Technology

EFFICIENCY

97% Patented RTE, 75KW/m³
Power Capacity, 3.2 Ton/m³
Density, AI Optimization

INTEGRATED STEAM GENERATOR

Real-time steam peaking,
no external heat exchangers / Fans = Reduced auxiliary power

REDUNDANCY

Multiple heaters, **dividable modules**, enable high availability / partial utilization

FOOTPRINT

Flat or tower-based, custom sizing for price and efficiency, 3MWh/m², 30Y lifespan

Efficiency

BALANCING RESPONSE

bGen™ instantly aids grid balancing by **charging** TES with excess grid energy

GRID VERSATILITY

bGen™ offers limitless energy absorption from grid with **cycle-independent** lifespan

OPTIMIZED CHARGING

Efficient charging even near full capacity, through **full control** of selected TES blocks

GRID-SILENT OPERATION

Embedded heaters, no rotating devices, **99.9% Active Factor**, Harmonics Free

Operations

WARRANTY

Side-to-Side warranty, easy maintenance, **independent** local service providers

LOCALIZED MANUFACTURING

Rapid local deployment of **automated manufacturing** lines, Industry 4 aligned

SUSTAINABLE COMPLIANCE

Adherence to global ESG standards, **< 25 KgCO₂e** per manufactured KWh

CERTIFIED EXCELLENCE

Approved for Environmental, Safety, Quality, and local **Regulatory Standards**

Strategy

MATURITY

Extensive test sites deployed; competitive heat pricing and **Commercial ready**

EXPERTISE

Heat electrification, Energy-as-a-Service, responsibility **including steam production**

PARTNERSHIPS

Partnering with electricity suppliers, grid operators, service providers, **regionally**

SUPPLY CHAIN

Optimized CapEx, **in-house manufacturing** and supply chain management

Business Models

Diversified income stream from multiple services, **tailored to customer**



EQUIPMENT SALES

One-off sale with O&M contract



HEAT-AS-A-SERVICE

Supply clean heat at agreed price



CAPACITY PAYMENTS

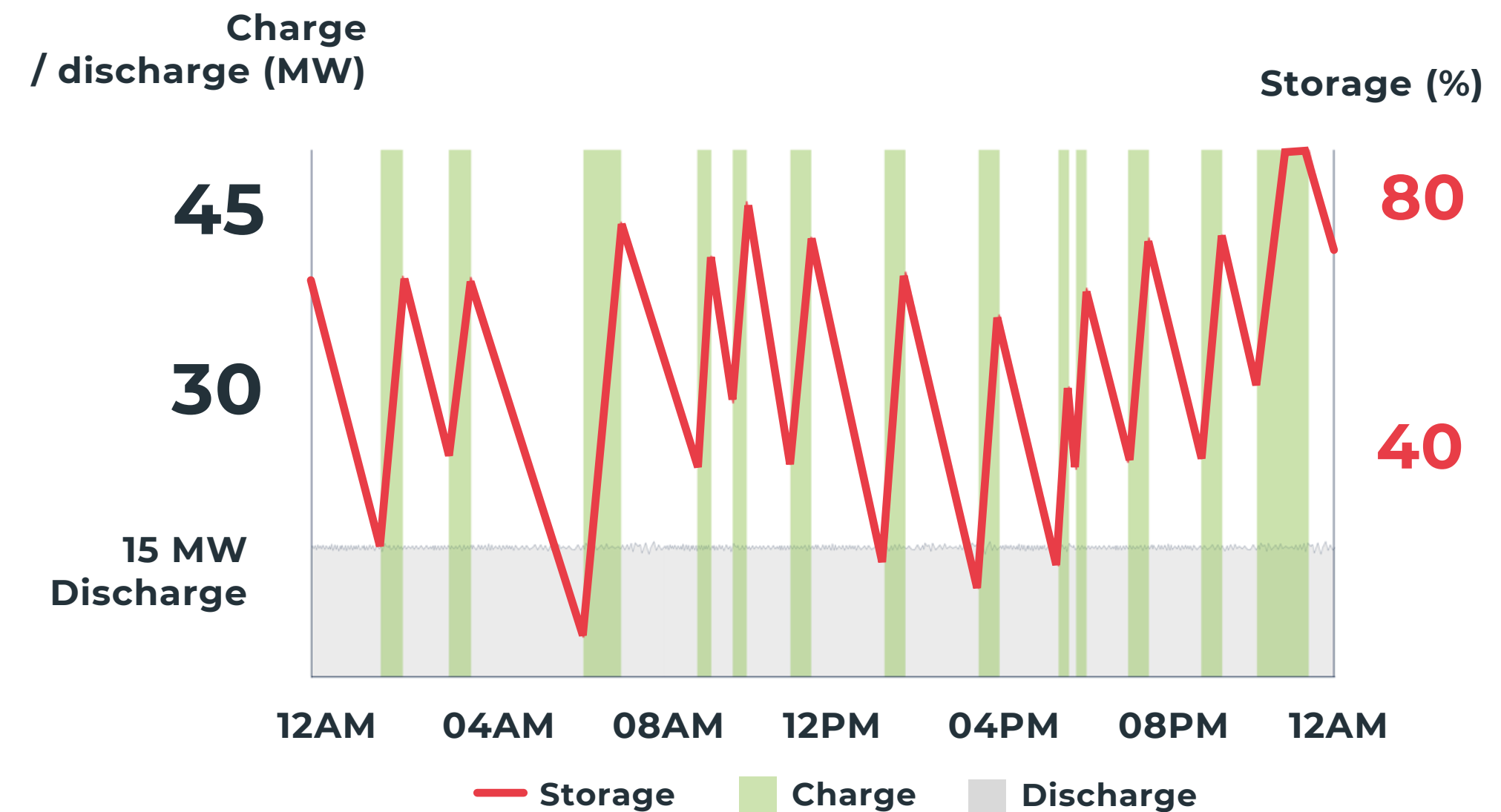
Take on excess electricity from grid



GRID SERVICES & CAPACITY PAYMENTS

Take excess electricity from grid
frequency and load shifting support

Opportunistic fast charging at off-peak prices **enables low average cost of energy¹**



Source : ¹ Company Materials for an EU country in 2024

→ Thank you





BRENNMILLER

THERMAL ENERGY STORAGE

